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10/553,784	08/04/2006	Massimo Malavasi	108907-00043	3967
4372 7590 09/16/2011 ARENT FOX LLP			EXAMINER	
1050 CONNEC SUITE 400	TICUT AVENUE, N.	W.	LAUX, DAVID J	
	WASHINGTON, DC 20036			PAPER NUMBER
			3743	
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## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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DCIPDocket@arentfox.com IPMatters@arentfox.com Patent\_Mail@arentfox.com Application/Control Number: 10/553,784 Page 2

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## Response to Arguments

1. Applicant's arguments filed 08/17/2011 have been fully considered but they are not persuasive.

- 2. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., slag not building up on reactor walls, a single combustion chamber) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
- 3. Applicant also argues that '288 is inoperable because '288 has cold zones and clogging problems because of ash build-up in the cold zones. It is unclear why applicant has determined that this is the case. The particulate fuel is entrained and exits the combustion chamber with the combustion gases, thus preventing ash build-up (Col. 8, lines 25-29). Furthermore, '288 does not disclose that cold zones are present. '288 discusses that the gases are traveling around the combustion chamber at high speeds with a large amount of turbulence, which would prevent cold zones from forming and would create conditions of isothermy or quasi-isothermy (Col. 3, lines 43-46, 63-67).
- 4. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

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USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Specifically, '375 to Kasin is not used to teach combustion temperatures.

- 5. In response to applicant's argument that '375 would not be motivated to combine with '288, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).
- 6. In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the motivation to combine can be found in the knowledge generally available to one of ordinary skill in the art.
- 7. In response to applicant's amendment to claim 32 to overcome the rejection under § 112, the amendment does not overcome the previous rejection. Claim 1, from which claim 32 now depends, requires recycled gases containing water in a concentration of 30% or higher. Claim 32 purportedly removes this limitation, making claim 32 broader than claim 1 and rendering the claim indefinite.

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8. In response to applicant's argument that using '288 at higher temperatures would result in slag being produced which would render the device inoperable, it is unclear why one having ordinary skill in the art would want to operate the burner at higher temperatures. Further, applicant has not claimed the burner operating at a specific temperature range or that the temperature is above the melting point of the incombustible fly ashes.